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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,353	02/25/2002	Masakazu Sugimoto	52433/682	7090

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EXAMINER

FLANDRO, RYAN M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/070,353

Applicant(s)

SUGIMOTO ET AL.

Examiner

Ryan M Flandro

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 22 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 2 is objected to because of the following informalities: (1) the word “a” should be inserted at line 5 between the words “of” and “T”; (2) the phrase “is/are” at line 6 should be changed to “are”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, recitation of the limitation that each tabular member is bent in the shape of a U or V conflicts with the recitation in claim 2 (from which claim 5 depends) that each tabular member is in the shape of a T.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Bloom (US 5,481,835).

- a. Claim 1. Bloom shows a joining structure **410** having one or more tabular members **480** protruding from the surface of a structural member, [comprising] bending one or both ends **450** of each tabular member **480** (see figure 2c; column 5 lines 5-15).
- b. Claim 2. Bloom further shows each tabular member **480** is a reinforcing rib extending in the direction of the principal stress of the structural member and protruding in the shape of [a] T; and one or both ends **450** of each reinforcing rib **480** are bent in a direction deviating from the direction of said principal stress (figure 2c).
- c. Claim 3. Bloom shows both ends **450** of each tabular member **480** bent in the shape of a gradual curve (figure 2c).
- d. Claim 10. Bloom shows both ends **450** of each tabular member **480** bent at a right angle to the direction of the principal stress (figure 2c).
- e. Claim 5. Bloom shows each tabular member **480** bent into the shape of a U (figure 2c).

- f. Claim 11. Bloom further shows the structural member having a coupling flange or base plate **440, 490**, and said tabular members **450** disposed between the structural member and the coupling flange or base plate **440, 490** (figure 2c).
 - g. Claim 12. Bloom further shows each tabular member **480** serving as a fixture for one or more members **460** to be joined (figure 2c).
 - h. Claim 13. Bloom further shows a tabular member **480** serving as a fixture for a secondary member **460** (figure 2c).
- 7. Claims 1-8 are alternatively rejected under 35 U.S.C. 102(b) as being anticipated by Hagglund (US 3,811,785).
 - a. Claim 1. Hagglund shows a joining structure having one or more tabular members **2, 3** protruding from the surface of a structural member **11**, [comprising] bending one or both ends of each tabular member **2, 3** (see figure 7).
 - b. Claim 2. Hagglund further shows each tabular member **2, 3** is a reinforcing rib extending in the direction of the principal stress of the structural member **11** and protruding in the shape of [a] T; and one or both ends of each reinforcing rib **2, 3** are bent in a direction deviating from the direction of said principal stress (figure 7).
 - c. Claim 3. Hagglund shows both ends of each tabular member **2, 3** bent in the shape of a gradual curve (figure 7).
 - d. Claim 10. Hagglund shows both ends of each tabular member **2, 3** bent at a right angle to the direction of the principal stress (figure 7).

- e. Claim 5. Hagglund shows each tabular member **2, 3** bent into the shape of a U (figure 7).
- f. Claim 11. Hagglund shows the structural member **11** having a coupling flange or base plate **21**, and said tabular members **2, 3** disposed between the structural member **11** and the coupling flange or base plate **21** (figure 7).
- g. Claim 12. Hagglund also shows each tabular member **2, 3** serving as a fixture for one or more members **21** to be joined (figure 7).
- h. Claim 13. Hagglund shows a tabular member **2, 3** serving as a fixture for a secondary member **21** (figure 7).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregg et al (US 5,979,130) (Gregg) in view of Cook (US 5,626,534). Specifically, Gregg shows and discloses anchor bolts **23** extending in the direction of the principal stress of a structural member **11, 1**, said anchor bolts **23** being fixed to a surface of the structural member **11, 1**, characterized by bending an end **32** of each anchor bolt **23** in a direction deviating from the direction of said principal stress (see figure 12; column 6 lines 10-53). Gregg shows the bolt **23** attached by threaded means to the structural member **11, 1** but lacks disclosure that said bolts **23** are welded to the structural member **11, 1**. Cook, however, teaches that threaded joining and welds are considered art recognized equivalents for means of attachment (see column 5 lines 60-67). Inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. *In re Fout*, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to joining structures:

U.S. Patent 6,427,393 to Chen et al.

U.S. Patent 6,324,800 to Valentz et al.

U.S. Patent 6,073,405 to Kasai et al.

U.S. Patent 6,032,425 to Gugliotti

U.S. Patent 5,752,781 to Haataja et al.

U.S. Patent 5,467,570 to Leek

U.S. Patent 5,004,366 to Simmons

U.S. Patent 4,825,621 to Jensen

U.S. Patent 3,525,495 to Brosseau

U.S. Patent 3,436,102 to Shelly

U.S. Patent 2,217,055 to Jennens

U.S. Patent 2,146,333 to Deming

U.S. Patent 1,539,580 to Lally

U.S. Patent 943,747 to Hickman

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M Flandro whose telephone number is (703) 305-6952. The examiner can normally be reached on 8:30am - 5:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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Art Unit: 3679

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Ryan M. Flandro
January 31, 2003



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670